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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/829,774	04/10/2001	Gregory V. Andrews	2222/9	1558

7590

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EXAMINER

PIERCE, JEREMY R

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 01/16/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/829,774

Applicant(s)

ANDREWS, GREGORY V.

Examiner

Jeremy R. Pierce

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 18-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-17, drawn to a composite yarn and an intermediate fabric product, classified in class 428, subclass 377.
  - II. Claims 18-34, drawn to a method for producing a metallic fabric, classified in class 28, subclass various.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the composite yarn and intermediate fabric would be useful themselves in clothing without the step of dissolving the fluid-soluble strand.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with W. Thad Adams on January 8, 2003 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-17. Affirmation of this election must be made by applicant in replying to this

Office action. Claims 18-34 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 7, 9-13, 15, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. (U.S. Patent No. 4,764,779).

Sato et al. disclose a fibrous material comprising a core yarn and a covering layer of metal fiber spirally wound around the core yarn (column 3, lines 10-12). The core yarn may be polyvinyl alcohol fibers (column 3, line 19), which are fluid soluble and the metal fiber may be stainless steel (column 3, line 39). With regard to claim 4, the metallic wire is a single strand (column 4, lines 16-24). With regard to claims 4 and 7, the core yarn can be multi-filament and have a thickness between 50 and 3000 deniers (column 3, lines 28-33). With regard to claims 9 and 17, the composite yarn is formed into a fabric by knitting or weaving (column 4, lines 14-15). With regard to claim 16, .002 inches equals 50.8 microns. Sato et al. disclose the metal fiber to be 50 microns whether ribbon shaped (column 4, line 53) or not (column 4, line 19).

7. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakai (Japan Patent 62-61747, an English abstract is provided). The rejection is based

upon the English Abstract. A translation to the full patent has been ordered, and a copy will be provided in the next Office Action.

Sakai discloses winding conductive wire around a core of water-soluble fiber.

8. Claims 1, 2, 9, 10, and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshinaka et al. (Japan Patent 9-59839, an English abstract is provided).

Yoshinaka et al. disclose a twisted yarn with a core of water-soluble polyvinyl alcohol fiber that is knitted into a fabric, whereupon the soluble fibers are removed.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 6, 8, 14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al.

With regard to claims 6 and 14, Sato et al. do not directly disclose a polyvinyl alcohol multi-filament yarn that is 760 denier and 48 filaments. However, the denier size is within the cited range of between 50 and 3000 denier, and Sato et al. also disclose preferably using multi-filament yarns (column 3, lines 28-33). It would have been obvious to one having ordinary skill in the art to provide a multi-filament polyvinyl alcohol fiber as the core in Sato et al. that is 760 denier and 48 filaments, since it would be necessary to provide a yarn within the cited ranges of Sato et al. and selection of a

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particular value would be an obvious matter of design choice. With regard to claim 16, 0.002 inches equals 50.8 microns. Sato et al. disclose the metal fiber to be 50 microns whether ribbon shaped (column 4, line 53) or not (column 4, line 19). With regard to claim 8, Sato et al. do not teach using multi-filament stainless steel wire. It would have been obvious to one having ordinary skill in the art to use multi-filament steel wire rather than mono-filament steel wire in the invention of Sato et al. as a matter of obvious design choice, since using multi-filament yarn would perform the same function as using mono-filament yarn.

### ***Conclusion***

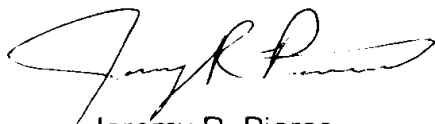
11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 2,342,098 to Alderfer; U.S. Patent No. 3,900,624 to Schare; U.S. Patent No. 3,602,964 to Currier; JP 6-93531 to Hirai et al.; JP 53-103063 to Kondo Seisen Kogyo; FR 2,668,176 to Guevel et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (703) 605-4243. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



Jeremy R. Pierce  
Examiner  
Art Unit 1771

January 10, 2003

*Handwritten:* Page 1168  
**ELIZ**  
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